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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)				
Office Action Summary	10/552,080	BODLAENDER ET AL.				
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The MAII ING DATE of this communication ann	James Hwa ears on the cover sheet with the o	2163				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any - earned patent term adjustment. See 37 CFR 1.704(b).						
Status						
1) Responsive to communication(s) filed on <u>07 Ar</u>	Responsive to communication(s) filed on <u>07 April 2003</u> .					
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• • • • • • • • • • • • • • • • • • • •	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.						
Disposition of Claims	·					
4) Claim(s) <u>1-17</u> is/are pending in the application.						
4a) Of the above claim(s) is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>1-17</u> is/are rejected. 7)□ Claim(s) is/are objected to.						
8) Claim(s) israre objected to: 8) Claim(s) are subject to restriction and/or election requirement.						
Application Papers						
9) The specification is objected to by the Examiner.						
10)⊠ The drawing(s) filed on <u>07 April 2003</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).						
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.						
Priority under 35 U.S.C. § 119						
12)⊠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).						
a) ☑ All b) ☐ Some * c) ☐ None of:						
1. Certified copies of the priority documents have been received.						
2. Certified copies of the priority documents have been received in Application No						
3. Copies of the certified copies of the priority documents have been received in this National Stage						
application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.						
dee the attached detailed Office action for a list of the certified copies not received.						
Attachment(s) 1) Notice of References Cited (PTO-892)	4) 🔲 Interview Summary	y (PTO-413)				
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail D 5) Notice of Informal	Date				
 Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 3/29/2007. 	6) Other:	, асоль гурнования				

DETAILED ACTION

1. Claims 1-17 are pending in this office action. This action is responsive to Applicant's application filed 4/7/2003.

Information Disclosure Statement

2. The Applicants' Information Disclosure Statements, filed on March 28, 2007, has been received and entered into the record, Since the Information Disclosure Statements complies with the provisions of MPEP § 609, the references cited therein have been considered by the examiner. See attached forms PTO-1449.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of the title.

3. Claims 1-9 are rejected under 35 U.S.C.101 because the language of the claim raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practice application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C 101.

An invention that is "inoperative" (i.e., it does not operate to produce the results claimed by the patent applicant) is not a "useful" invention in the meaning of the patent law. See, e.g., Newman v. Quigg, 877 F.2d 1575, 1581, 11 USPQ2d 1340, 1345 (Fed.

Cir. 1989); In re Harwood, 390 F.2d 985, 989, 156 USPQ 673, 676 (CCPA 1968) ("An inoperative invention, of course, does not satisfy the requirement of 35 U.S.C. 101 that an invention be useful."). However, as the Federal Circuit has stated, "[t]o violate [35 U.S.C.] 101 the claimed device must be totally incapable of achieving a useful result."

Claims 1-9 recite "A digital storage device including a content directory service with a dynamic, hierarchical structure of digital storage containers". However, the claims fail to contain a computer-readable storage that is used storing the product so as to realize its functionality. Thus, the bodies of claims are merely abstract idea and are being processed without any links to a practical result in the technology arts and without computer manipulation.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schultz et al. (US Patent No. 6,453,339 A1, hereinafter "Schultz") in view of Rasheed et al. (US Patent Application No. 2004/0064575 A1, hereinafter "Rasheed").

As to claim 1

Schultz teaches

"A digital storage device including a content directory service (CDS) with a dynamic, hierarchical structure of digital storage containers, each capable of storing digital data objects" as a system and method is described for presenting data from a plurality of sources to a user. The system includes a plurality of information sources, a user interface, content storage and a server connected to the user interface and the content storage (column 1, lines 45-50).

"each object including an object description and an object content or object content locator, such as a URL" as repository is structured for fast access. Everything in server is considered an object. Each object has an identifier and its relationship to other objects is defined via a relationship table. As noted above, content server can be implemented as a set of Java servlet classes that are initiated via URL calls to content server (column 6, lines 51-56).

"at least one of the containers being a predetermined input container for receiving a digital data object" as search meta files representing published content is

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stored in an index to facilitate searching by search engine. Engine receives a document to be published as content, associates an object key with that document and stores the object key in repository (column 4, lines 28-33).

"in response to receiving a digital data object in the predetermined input container, the device being arranged to determine a container in the CDS based on the object description and/or object content of the received object, to move the received object to the determined container and to provide feedback to a human operator of the device on the determined container" as the class uses two classes and has a Public Constructor which takes an InputStream Stream as its argument. The input stream is generated from a Properties file through the java.net.URL class (column 16, lines 17-22).

Schultz also teaches the caller specifies the type of object to search and the class will search repository and return those objects that match the object type. Can be used for documents, messengers, channels, etc (column 7, lines 5-8).

Schultz teaches Content server includes a Publishing API used to publish to and retrieve data from content server. In one embodiment, a URL-based Web interface is used for communication between the user and content server. The call specifies which API to use and generates an HTML page to return to the user (column 7, lines 18-23).

Schultz further teaches the user interface selects data from one or more of the plurality of information sources to be identified as published content and issues content requests to access data identified as published content. The content storage stores published content and the server manages the content requests received from the user

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interface. The server includes a repository and a content directory, wherein the repository manages a virtual directory structure associated with published content, wherein the content directory maintains a content directory structure pointing to all published content stored in the content storage and wherein the content directory structure is referenced by the virtual directory structure in the repository (abstract).

Although Schultz teaches the content directory maintains a content directory structure pointing to all published content stored in the content storage (abstract), Schultz does not explicitly teach the claimed limitation "content directory service (CDS)".

Rasheed teaches

Content directory service provides a listing (a directory) of available video data that is displayed on a monitor connected to PC3. The user may select a movie from the listing displayed on monitor. In an embodiment, content directory service also enumerates any Quality of Service (QOS) requirements (data transmission characteristics) that correspond to an available video data selection (page 2, paragraph 0020; see also element 32 of figure 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having the teachings of Schultz and Rasheed before him/her, to modify Schultz a digital storage device including a content directory service because that would allow the prioritized data transfers between two network devices, i.e., giving preferential treatment to data transfers between applications executing on those devices as taught by Rasheed (page 1, paragraph 0012).

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As to claim 2

Schultz teaches

"the received object is associated with metadata describing the object content, and the device being arranged to determine the container based on the metadata associated with the received object" as storage device stores published content.

Published content is then accessed via server. Data entry device is connected to server. Server includes a server engine, a repository and a content directory. In one embodiment, search meta files representing published content are stored in an index to facilitate searching by search engine (column 4, lines 26-31;see also element 28 of figure 2).

As to claim 3

Schultz teaches

"the metadata is made available to the device in at least one of the following ways: the object description includes the metadata" as the content information is stored in a virtual filesystem so the content may physically exist in multiple databases on multiple platforms, some fields are mandatory and are indicated in the description.

Content repository consists of multiple tables. Everything entered into repository is considered an object (column 9, lines 26-32).

"the object description includes an object content identifier and the device being arranged to retrieve the metadata in dependence on the object content identifier" as the user interface selects data from one or more of the plurality of information sources to be

identified as published content and issues content requests to access data identified as published content (abstract). Everything in server is considered an object. Each object has an identifier and its relationship to other objects is defined via a relationship table (column 6, lines 51-53).

"the metadata is embedded in the object content" as by using this design virtually all objects and their relationships can be stored and retrieved such that the interdependencies can be maintained throughout the enterprise. This design is based on the metadata definition (column 9, lines 36-40).

"the device being arranged to determine a fingerprint of the object content and to retrieve the metadata in dependence on the fingerprint" as a thin security model is supported by content server. The security model is implemented in a relational database and consists of records, which identify each user of the content server. In one embodiment, the records are initially created by the administrator or by an autoload using LDAP (Lightweight Directory Access Protocol) or NIS (Network Information System) files. Commna-delimited files could also be used to autocreate a number of users. Each record has a unique identifier for each user and contains specific information about that particular user. Each user in turn is assigned to a group when created (column 11, lines 11-28).

As to claim 4

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"the metadata is included in the object description or retrieved using the object description" as the content server returns a text-delimited list, where the format is:

[Category description][ID of category] (column 7, lines 53-62)

Schultz also teaches HEADLINE is the column text field that is a short descrip of the document and is visible when viewing a document/folder list in the content server DESCRIP is a more detailed description (column 8, lines 42-45).

Schultz further teaches the content information is stored in a virtual filesystem so the content may physically exist in multiple databases on multiple platforms. In the embodiment, some fields are mandatory and are indicated in the description (column 9, lines 26-30).

"the device being arranged to determine a fingerprint of the object content, to retrieve further metadata in dependence on the fingerprint and to compare the metadata and the further metadata" as the variable OBJECTTYPEKEY identifies the class of document. The remaining variables have names that are self-explanatory (column 9, line 66 to column 10, line 1). Each record has a unique identifier for each user and contains specific information about that particular user. Each user in turn is assigned to a group when created. The default group for all users will be the public group. When creating content, the owner can specify which groups can access the content (column 11, lines 19-24).

As to claim 5

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"the device is arranged to interact with a human operator if the comparison reveals a mismatch" as the user group table maintains definitions of all users and their individual authentication strategies. It is indexed by OBJECTKEY, a unique ID that is internally generated by system for this document. The user group table includes one or more of the following fields: User first name, User last name, Unique name for this user, PASSWORD. User or group assigned to this entry. Index to the internal ID. The internal ID is the ID used to access the other systems (column 11, lines 29-34).

Schultz further teaches the transaction log table maintains a log of all transactions, which occur in system. It is indexable from either OBJECTKEY or from the USERS group via the USERKEY (column 12, lines 9-12).

As to claim 6

Schultz teaches

"the device includes rules for determining the container in dependence on metadata" as search meta files representing published content are stored in an index to facilitate searching by search engine. Engine receives a document to be published as content, associates an object key with that document and stores the object key in repository. In one such embodiment, a pointer to the object stored in storage device is placed in directory and a document stub file is written to index. Two information sources are a data warehouse and an on-line transaction processing system. In addition, other information sources, such as personal computer applications generating word

processing or spreadsheet documents, can publish to the library of system (column 4, lines 29-42; see also elements 14.1 and 14.2 of figure 2).

As to claim 7

Schultz teaches

"the device is operative to enable a human operator to determine and/or modify the rules" as the system administration terminal are connected through master server or through one of the slave servers to storage device. Master server in turn is connected to one or more slave servers and to one or more information sources (column 6, lines 4-9).

Schultz further teaches the Agent--provides administrator access to messenger functionality while maintaining the repository information regarding messenger creation, deletion and properties. Profile--provides administrator access to profile information while maintaining the user group and world group table structure (column 6, line 65 to column 7, line 3).

As to claim 8

Schultz teaches

"the predetermined container is located in a root of the CDS" as the content server, returns a text-delimited list. Where the format is: [object key of folder] [object key of parent folder (-1 means no parent, it is a root folder)] [owner object key (user)] [group owner object key] [permission string] (column 7, lines 53-65).

Although Schultz teaches the content directory maintains a content directory structure pointing to all published content stored in the content storage (abstract), Schultz does not explicitly teach the claimed limitation "content directory service (CDS)".

Rasheed teaches

Content directory service provides a listing (a directory) of available video data that is displayed on a monitor connected to PC3. The user may select a movie from the listing displayed on monitor. In an embodiment, content directory service also enumerates any QOS requirements that correspond to an available video data selection (page 2, paragraph 0020; see also element 32 of figure 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having the teachings of Schultz and Rasheed before him/her, to modify Schultz a digital storage device including a content directory service because that would allow the prioritized data transfers between two network devices, i.e., giving preferential treatment to data transfers between applications executing on those devices as taught by Rasheed (page 1, paragraph 0012).

As to claim 9

Schultz teaches

"the device is operative to enable the human operator to overrule the container determined by the device" as the system administrator operating on data entry device also has access to server engine through an HTML interface. In addition, in one

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embodiment, system provides JAVA applets to the administrator to aid him or her in performing more complex, mundane tasks (column 5, lines 3-8).

Schultz also teaches data entry device runs Java applets under control of the system administrator to present a portal-like interface to business intelligence (column 3, lines 35-38).

Schultz further teaches the Agent provides administrator access to messenger functionality while maintaining the repository information regarding messenger creation, deletion and properties (column 6, lines 65-67).

As to claim 10

Schultz teaches

"A system including a plurality of devices operative to communicate via a network" as the device is connected to server over a connection such as a telephone line. A user logging into server from a remote device can retrieve content as is logged into the local network (column 5, lines 51-54).

"at least one of the devices (server) including a content directory service (CDS) with a dynamic, hierarchical structure of digital storage containers, each capable of storing digital data objects" as a system for displaying information from different sources, system includes a content server connected to one or more information sources, to a storage device and to one or more data entry devices. In one embodiment, server includes a repository and a content directory (column 2, lines 57-63).

"each object including an object description and an object content or object content locator, such as a URL" as content server can be implemented as a set of Java servlet classes that are initiated via URL calls to content server. The class structure consists of a main servlet that controls access to content (column 6, lines 54-58).

"the CDS being accessible by the devices in the network and including a predetermined upload container for uploading an object from a device in the system" as the user browses the virtual directory of system and selects a location to publish the document. The report reference is then uploaded from information source to server and report information is stored in repository (column 17, lines 50-54).

"at least one device in the system (uploader) being arranged to make an object available via the CDS to devices in the system by uploading the object through the network to the predetermined container" as content information upload document from data entry devices to server engine (see element 20 and 26 of figure 2).

"the server being arranged to, in response to receiving an uploaded object in the predetermined upload container, determine a container in the CDS based on the object description and/or object content, to move the uploaded object to the determined container and to provide feedback to the uploader on the determined container" as the user interface selects data from one or more of the plurality of information sources to be identified as published content and issues content requests to access data identified as published content. The content storage stores published content and the server manages the content requests received from the user interface. The server includes a repository and a content directory, wherein the repository manages a virtual directory

structure associated with published content, wherein the content directory maintains a content directory structure pointing to all published content stored in the content storage and wherein the content directory structure is referenced by the virtual directory structure in the repository (abstract).

Although Schultz teaches the content directory maintains a content directory structure pointing to all published content stored in the content storage (abstract), Schultz does not explicitly teach the claimed limitation "content directory service (CDS)".

Rasheed teaches

Content directory service provides a listing (a directory) of available video data that is displayed on a monitor connected to PC3. The user may select a movie from the listing displayed on monitor. In an embodiment, content directory service also enumerates any QOS requirements that correspond to an available video data selection (page 2, paragraph 0020; see also element 32 of figure 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having the teachings of Schultz and Rasheed before him/her, to modify Schultz a digital storage device including a content directory service because that would allow the prioritized data transfers between two network devices, i.e., giving preferential treatment to data transfers between applications executing on those devices as taught by Rasheed (page 1, paragraph 0012).

As to claim 11

"the uploader is operative to provide feedback to a human operator of the device on the determined container" as when a report is viewed by a user, he or she accesses the report from content server and retrieves the document to be displayed in HTML on the user's browser. If the document is an on-demand report, the act of requesting the document causes server to query the information source associated with the report. In one embodiment, a URL referencing a cgi program is generated for each on-demand inquiry and an HTML document representing the results of the on-demand report request is forwarded to the user by information source (column 17, line 60 to column 18, line 2).

As to claim 12

Schultz teaches

"uploaded object is associated with metadata describing the object content, and the server being arranged to determine the container based on the metadata associated with the uploaded object" as the report reference is then uploaded from information source to server and report information is stored in repository. A reference to the report is also stored in the content directory and a search meta file is generated and stored into index. At the same time the search meta file is broadcast to other content servers (column 17, lines 53-59).

As to claim 13

"the CDS includes for each device of the system a respective predetermined upload container for uploading an object from the respective device" as the user can create messengers to add content to a channel. Messengers help the user to automate the delivery of objects to the preferred destination. They work behind the scenes to automatically update channels by broadcasting headline text messages with links to the associated content (column 18, lines 3-7).

Although Schultz teaches the content directory maintains a content directory structure pointing to all published content stored in the content storage (abstract), Schultz does not explicitly teach the claimed limitation "content directory service (CDS)".

Rasheed teaches

Content directory service provides a listing (a directory) of available video data that is displayed on a monitor connected to PC3. The user may select a movie from the listing displayed on monitor. In an embodiment, content directory service also enumerates any QOS requirements that correspond to an available video data selection (page 2, paragraph 0020; see also element 32 of figure 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having the teachings of Schultz and Rasheed before him/her, to modify Schultz a digital storage device including a content directory service because that would allow the prioritized data transfers between two network devices, i.e., giving preferential treatment to data transfers between applications executing on those devices as taught by Rasheed (page 1, paragraph 0012).

As to claim 14

Schultz teaches

"the uploader is operative determine the predetermined upload container by searching the CDS" as a reference to the report is also stored in the content directory and a search meta file is generated and stored into index. At the same time the search meta file is broadcast to other content servers (column 17, lines 55-59).

Although Schultz teaches the content directory maintains a content directory structure pointing to all published content stored in the content storage (abstract), Schultz does not explicitly teach the claimed limitation "content directory service (CDS)".

Rasheed teaches

Content directory service provides a listing (a directory) of available video data that is displayed on a monitor connected to PC3. The user may select a movie from the listing displayed on monitor. In an embodiment, content directory service also enumerates any QOS requirements that correspond to an available video data selection (page 2, paragraph 0020; see also element 32 of figure 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having the teachings of Schultz and Rasheed before him/her, to modify Schultz a digital storage device including a content directory service because that would allow the prioritized data transfers between two network devices, i.e., giving preferential treatment to data transfers between applications executing on those devices as taught by Rasheed (page 1, paragraph 0012).

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As to claim 15

Schultz teaches

"the system includes a plurality of servers each including respective rules for determining a container in the CDS for an uploaded object in dependence on metadata associated with the uploaded object; the servers being operative to exchange and/or synchronize the rules" as a reference to the report is also stored in the content directory and a search meta file is generated and stored into index At the same time the search meta file is broadcast to other content servers (column 17, lines 55-59).

Schultz further teaches the servlet determines the object key for the messenger and inserts the object key in repository. The servlet also creates a relationship between the messenger and channel in repository. In addition, the messenger is added to the task table is an email has been specified. A servlet maintenance thread then monitors the task table to complete scheduled tasks (column 18, lines 19-25).

As to claim 16

the limitations therein have substantially the same scope as claim 1. In addition, Schultz teaches a system and method is described for presenting data from a plurality of sources to a user (column 1, lines 45-48). This claim is rejected for at least the same reasons as claim 1.

As to claim 17

"A computer program product operative to cause a processor to perform the method as claimed in claim 16" as the action and processes of a computer system, or similar electronic computing device, that manipulates and transforms data represented as physical quantities within the computer system's registers and memories into other data similarly represented as physical quantities within the computer system memories or registers or other such information storage, transmission or display devices (column 2, lines 50-56).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant' disclosure.

Phan et al. (US Patent Application 2004/0193609 A1).

Hoffman (US Patent 5,761,655 A).

Andani (US Patent Application 2003/0105778 A1).

Lee et al. (US Patent Application 2002/0007368 A1).

Chinnappan et al. (US Patent Application 2002/0111870 A1).

Neumann et al. (US Patent 6,735,592 B1).

Hewitt et al. (US Patent Application 2001/0034219 A1).

Beauregard et al. (US Patent Application 2002/0156774 A1).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Hwa whose telephone number is 571-270-1285. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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JH 5/29/2007

James Hwa Examiner Art Unit 2163

DON WONG

SUPERVISORY PATENT EXAMINER
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